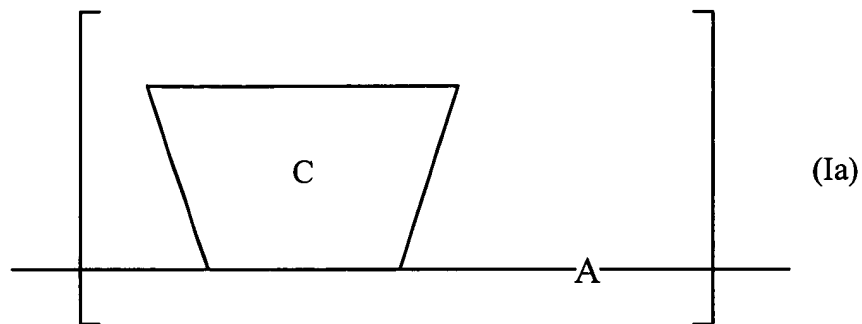


## Appendix C

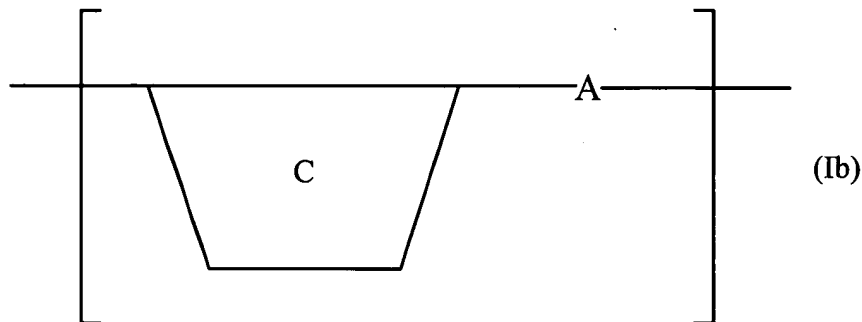
### Complete Set of Claims For Examination

The claimed invention is:

1. (Amended) A water-soluble, linear cyclodextrin copolymer comprising repeating units of formula Ia, Ib or a combination thereof:



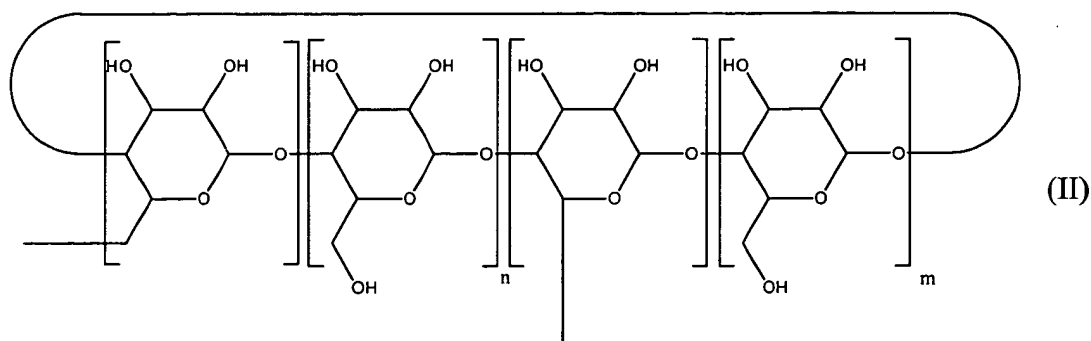
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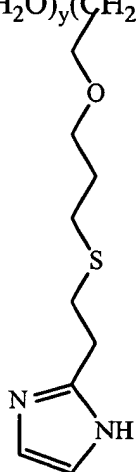
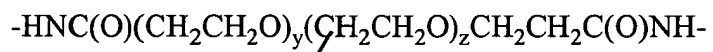
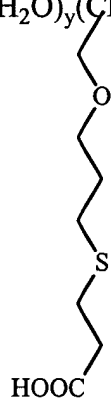
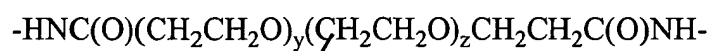
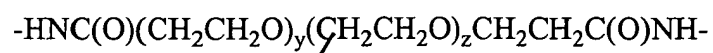
wherein C is a substituted or unsubstituted cyclodextrin monomer and A is a comonomer bound to cyclodextrin C.

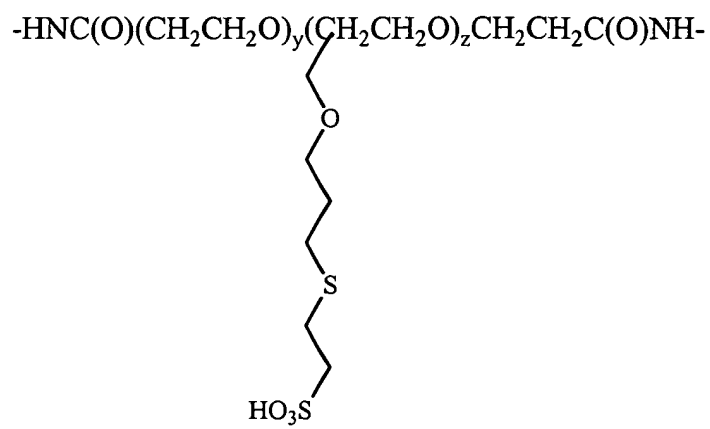
2. A cyclodextrin copolymer of claim 1, wherein said cyclodextrin monomer is an  $\alpha$ -,  $\beta$ -,  $\gamma$ -cyclodextrin, or combination thereof.

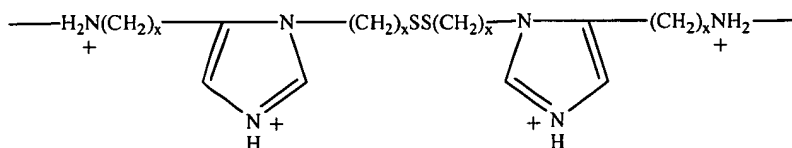
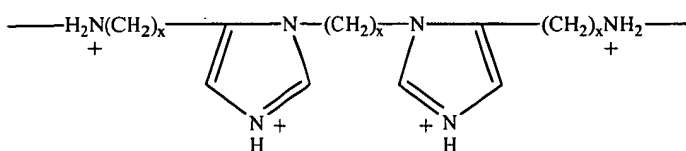
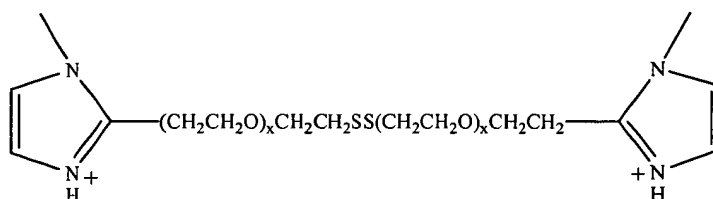
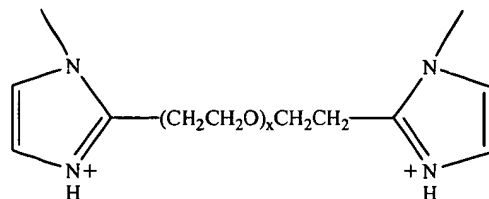
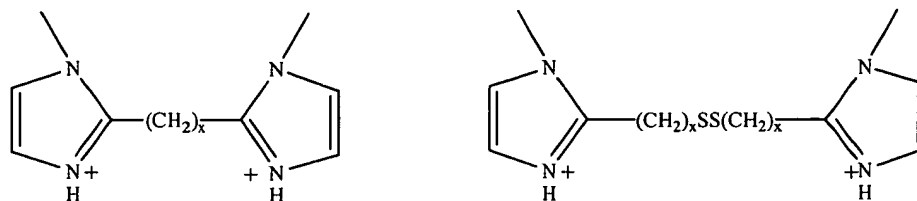
3. A cyclodextrin copolymer of claim 1, wherein said cyclodextrin monomer has the general formula (II):



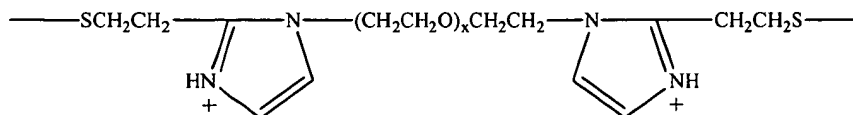
6. A cyclodextrin copolymer of claim 1, wherein A is a protonated or non-protonated comonomer selected from the group consisting of:  $\text{-HNC(O)(CH}_2\text{)}_x\text{C(O)NH-}$ ,  $\text{-HNC(O)(CH}_2\text{)}_x\text{SS(CH}_2\text{)}_x\text{C(O)NH-}$ ,  $\text{-}^+\text{H}_2\text{N(CH}_2\text{)}_x\text{SS(CH}_2\text{)}_x\text{NH}_2^+\text{-}$ ,  $\text{-HNC(O)(CH}_2\text{CH}_2\text{O)}_x\text{CH}_2\text{CH}_2\text{C(O)NH-}$ ,  $\text{-HNNHC(O)(CH}_2\text{CH}_2\text{O)}_x\text{CH}_2\text{CH}_2\text{C(O)NHNH-}$ ,  $\text{-}^+\text{H}_2\text{NCH}_2(\text{CH}_2\text{CH}_2\text{O)}_x\text{CH}_2\text{CH}_2\text{CH}_2\text{NH}_2^+\text{-}$ ,  $\text{-HNC(O)(CH}_2\text{CH}_2\text{O)}_x\text{CH}_2\text{CH}_2\text{SS(CH}_2\text{CH}_2\text{O)}_x\text{CH}_2\text{CH}_2\text{C(O)NH-}$ ,  $\text{-HNC(NH}_2^+\text{)(CH}_2\text{CH}_2\text{O)}_x\text{CH}_2\text{CH}_2\text{C(NH}_2^+\text{)NH-}$ ,  $\text{-SCH}_2\text{CH}_2\text{NHC(NH}_2^+\text{)(CH}_2\text{)}_x\text{C(NH}_2^+\text{)NHCH}_2\text{CH}_2\text{S-}$ ,  $\text{-SCH}_2\text{CH}_2\text{NHC(NH}_2^+\text{)(CH}_2\text{)}_x\text{SS(CH}_2\text{)}_x\text{C(NH}_2^+\text{)NHCH}_2\text{CH}_2\text{S-}$ ,  $\text{-SCH}_2\text{CH}_2\text{NHC(NH}_2^+\text{)CH}_2\text{CH}_2(\text{OCH}_2\text{CH}_2\text{)}_x\text{C(NH}_2^+\text{)NHCH}_2\text{CH}_2\text{S-}$ ,







and



;

where  $x = 1-50$ , and  $y + z = x$ .

7. A cyclodextrin copolymer of claim 1, wherein A is biodegradable or acid-labile.
8. A cyclodextrin copolymer of claim 1, further comprising wherein the cyclodextrin

copolymer is crosslinked to a polymer.

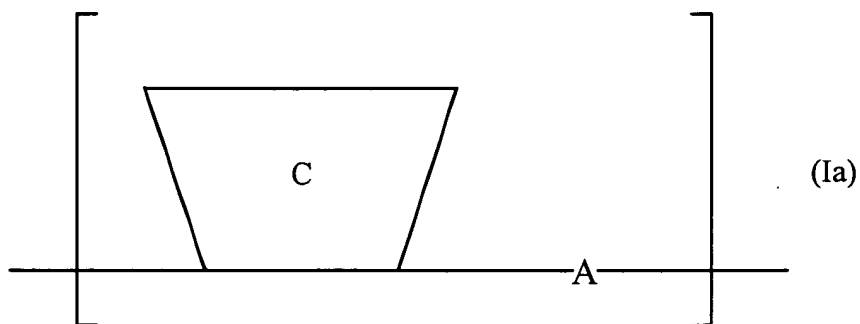
9. A cyclodextrin copolymer of claim 8, further comprising wherein at least one ligand is bound to the linear cyclodextrin copolymer; wherein said ligand allows the attached linear cyclodextrin to target and bind to a cell.

10. A cyclodextrin copolymer of claim 1, further comprising wherein at least one ligand is bound to the linear cyclodextrin copolymer; wherein said ligand allows the attached linear cyclodextrin to target and bind to a cell.

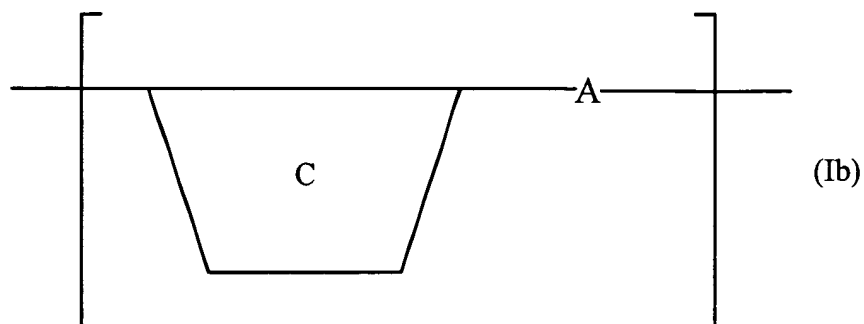
18. A therapeutic composition comprising a cyclodextrin copolymer of claim 1, 8, 9, or 10 and a therapeutic agent.

24. (Amended) A method of preparing a water-soluble, linear cyclodextrin copolymer comprising the steps of:

copolymerizing a cyclodextrin monomer precursor, where said cyclodextrin monomer precursor is disubstituted with the same or different leaving group, with a comonomer A precursor capable of displacing said leaving groups to form a linear cyclodextrin copolymer having repeating units of formula Ia and Ib, or a combination thereof:

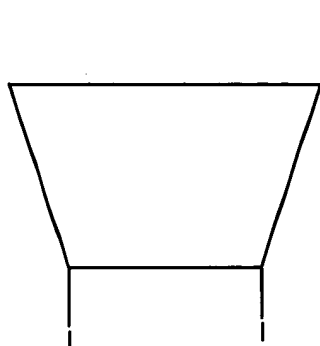


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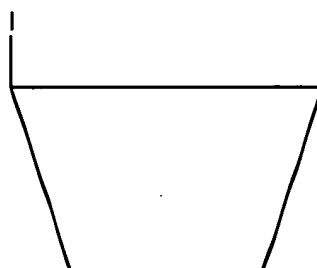


wherein C is a substituted or unsubstituted cyclodextrin monomer and A is a comonomer bound to cyclodextrin C.

25. (Amended) A method of preparing a water-soluble, linear cyclodextrin copolymer of claim 24, wherein said disubstituted cyclodextrin monomer precursor is a diiodinated cyclodextrin monomer precursor of formula IVa, IVb, IVc.

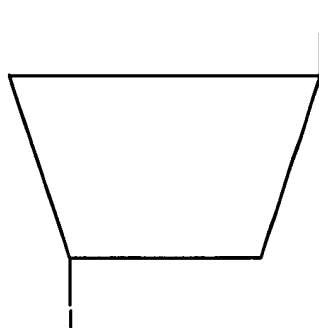


(IVa)



(IVb)

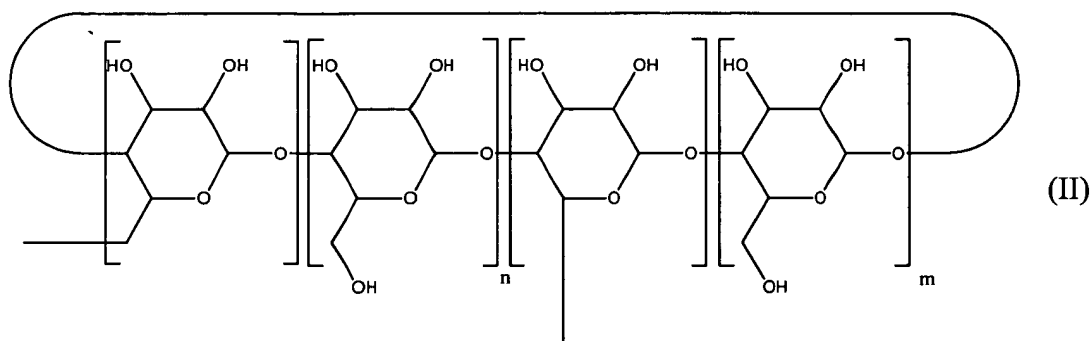
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(IVc)

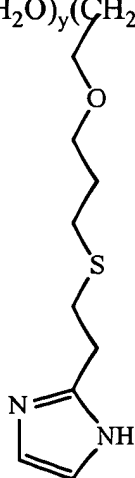
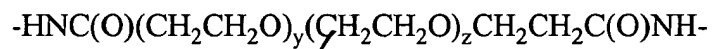
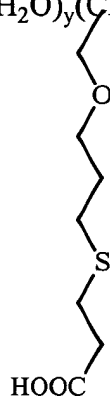
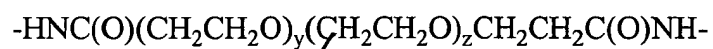
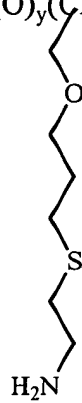
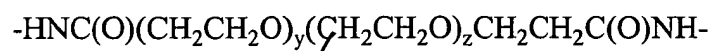
26. A method of claim 24, wherein said cyclodextrin monomer is an  $\alpha$ -,  $\beta$ -  $\gamma$ -cyclodextrin or combination thereof.

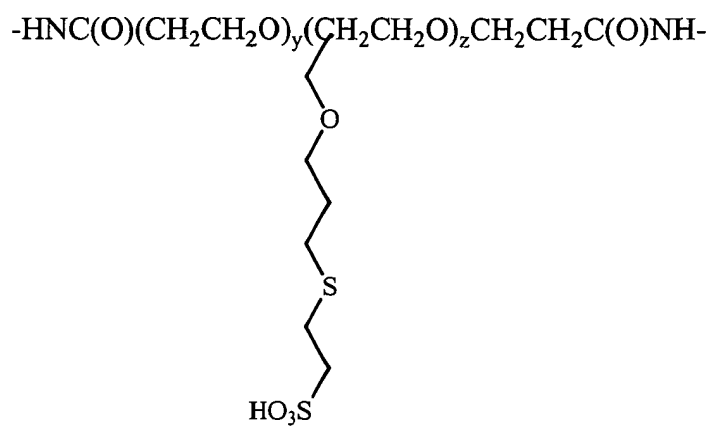
27. A method of claim 24, wherein said cyclodextrin monomer has the general formula (II):

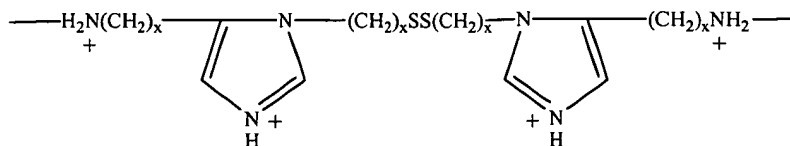
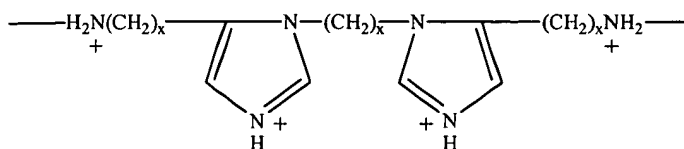
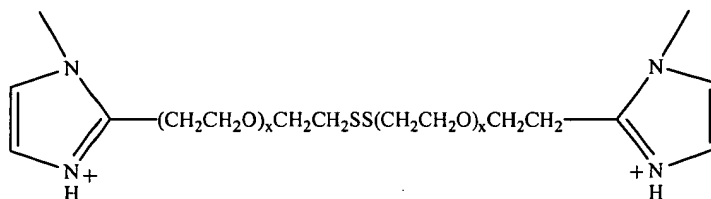
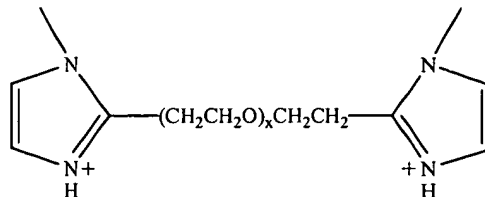
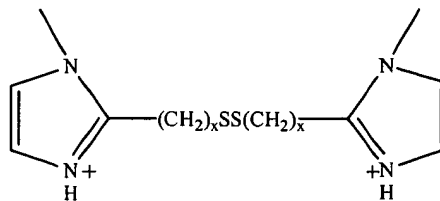
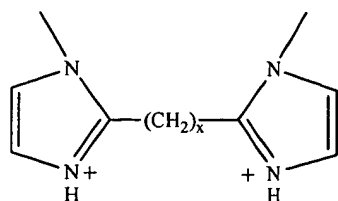


30. A method of claim 24, wherein A is a protonated or non-protonated comonomer selected from the group consisting of:  $\text{-HNC(O)(CH}_2\text{)}_x\text{C(O)NH-}$ ,  $\text{-HNC(O)(CH}_2\text{)}_x\text{SS(CH}_2\text{)}_x\text{C(O)NH-}$ ,  $\text{-}^+\text{H}_2\text{N(CH}_2\text{)}_x\text{SS(CH}_2\text{)}_x\text{NH}_2^+\text{-}$ ,  $\text{-HNC(O)(CH}_2\text{CH}_2\text{O)}_x\text{CH}_2\text{CH}_2\text{C(O)NH-}$ ,  $\text{-HNNHC(O)(CH}_2\text{CH}_2\text{O)}_x\text{CH}_2\text{CH}_2\text{C(O)NHNH-}$ ,  $\text{-}^+\text{H}_2\text{NCH}_2(\text{CH}_2\text{CH}_2\text{O)}_x\text{CH}_2\text{CH}_2\text{CH}_2\text{NH}_2^+\text{-}$ ,  $\text{-HNC(O)(CH}_2\text{CH}_2\text{O)}_x\text{CH}_2\text{CH}_2\text{SS(CH}_2\text{CH}_2\text{O)}_x\text{CH}_2\text{CH}_2\text{C(O)NH-}$ ,  $\text{-HNC(NH}_2^+\text{)(CH}_2\text{CH}_2\text{O)}_x\text{CH}_2\text{CH}_2\text{C(NH}_2^+\text{)NH-}$ ,  $\text{-SCH}_2\text{CH}_2\text{NHC(NH}_2^+\text{)(CH}_2\text{)}_x\text{C(NH}_2^+\text{)NHCH}_2\text{CH}_2\text{S-}$ ,  $\text{-SCH}_2\text{CH}_2\text{NHC(NH}_2^+\text{)(CH}_2\text{)}_x\text{SS(CH}_2\text{)}_x\text{C(NH}_2^+\text{)NHCH}_2\text{CH}_2\text{S-}$ ,  $\text{-SCH}_2\text{CH}_2\text{NHC(NH}_2^+\text{)CH}_2\text{CH}_2(\text{OCH}_2\text{CH}_2\text{)}_x\text{C(NH}_2^+\text{)NHCH}_2\text{CH}_2\text{S-}$ ,

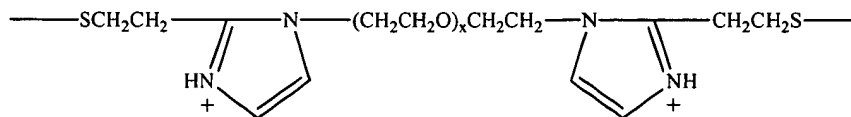








and



;

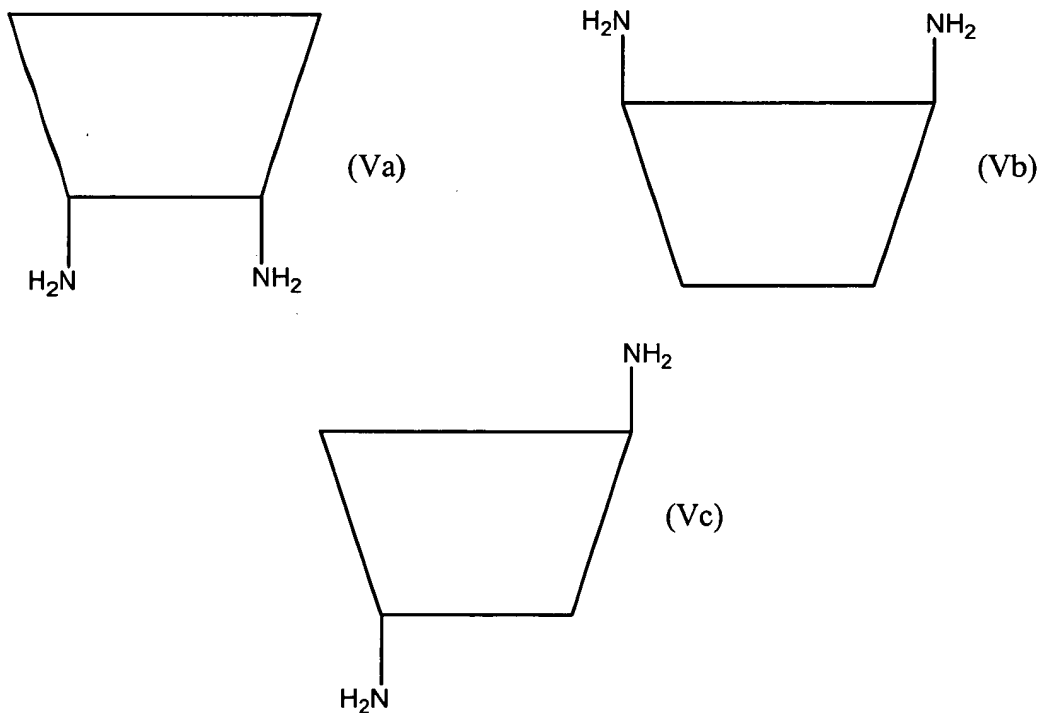
where  $x = 1-50$ , and  $y + z = x$ .

31. A method of claim 24 further comprising the step of reacting said linear cyclodextrin copolymer with a ligand to form a linear cyclodextrin copolymer having at least one ligand

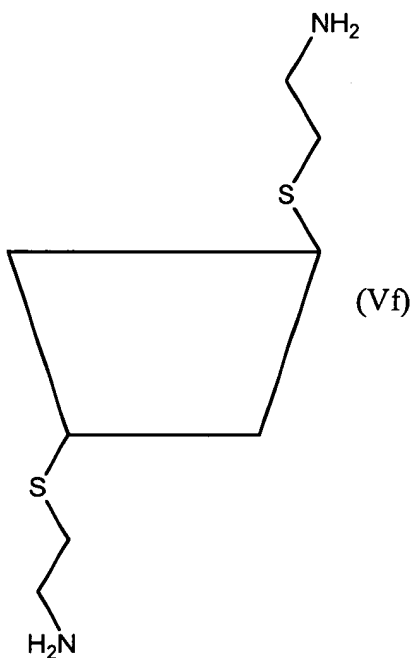
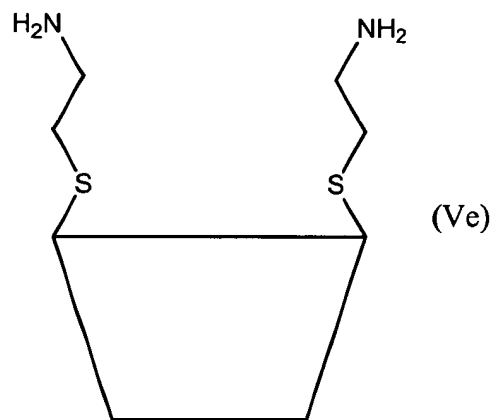
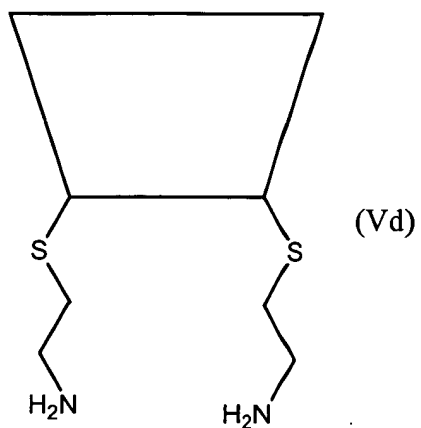
bound to the copolymer; wherein said ligand allows the attached linear cyclodextrin to target and bind to a cell.

32. A method of claim 25, further comprising the step of  
aminating said diiodinated cyclodextrin monomer precursor to form a diaminated  
cyclodextrin monomer precursor; and  
copolymerizing said diaminated cyclodextrin monomer precursor to form said cyclodextrin  
copolymer having repeating units of formula Ia, Ib, or a combination thereof.

33. A method of claim 32, wherein said diaminated cyclodextrin monomer precursor is of  
formula Va, Vb, Vc.



34. A method of claim 32, wherein said diaminated cyclodextrin monomer precursor is of formula Vd, Ve, and Vf.



44. A method of delivering a therapeutic agent comprising the step of administering a therapeutically effective amount of a therapeutic composition of claim 18.

46. A method of delivering a therapeutic agent comprising the steps of:  
combining a cyclodextrin copolymer of claims 1, 8, 9, or 10 with a therapeutic agent to form a mixture; and  
allowing said mixture to self-assemble to form an associated composition; and  
administering a therapeutically effective amount of said associated composition to a subject in need of said therapeutic agent.